

What is claimed is:

1. A communication device comprising:
  - a signal modifier that modifies an input signal to reduce peak signals associated with the input signal and provides a peak reduced input signal; and
  - a power amplifier that amplifies the peak reduced input signal and an instruction signal associated with modifications of the input signal by the signal modifier, the instruction signal being employed by a receiver to reconstruct the input signal to its original form prior to modification.
2. The communication device of claim 1, the signal modifier comprising a signal shaper that shapes a modulation constellation of the input signal to reduce peak signals associated with the input signal.
3. The communication device of claim 1, further comprising a signal combiner that combines the instruction signal in one of a parallel and a sequential relationship with the peak reduced input signal.
4. The communication device of claim 1, the instruction signal being an instruction code that is modulated into the peak reduced input signal.
5. The communication device of claim 1, the input signal conforming to one Wideband Code Division Multiple Access (WCDMA), Orthogonal Frequency Division Multiplexing (OFDM), Global Standard for Mobile Communication (GSM), Code Division Multiple Access (CDMA 2000) and Time Division Multiple Access (TDMA).
6. The communication device of claim 1, further comprising a digital-to-analog converter (DAC) that converts the peak reduced input signal and the instruction signal from the digital domain to the analog domain directly to radio transmission frequencies, and provides an analog peak reduced input signal and an analog instruction signal to the power amplifier for amplification.

7. The communication device of claim 1, the signal modifier comprising a signal splitter that decomposes the input signal into a plurality of replica signals, each of the plurality of replica signals having a maximum peak value below the maximum peak value of the input signal.

8. The communication device of claim 7, further comprising a signal combiner that sequential orders the plurality of replica signals for transmission.

9. A communication device comprising:  
a detector/ decoder that receives a transmission signal that contains a modified input signal and an instruction signal from a transmitter, the instruction signal being associated with modifications of the input signal; and  
a reconstructor that reconstructs the modified input signal to its original form prior to modification employing information associated with the instruction signal.

10. The communication device of claim 9, further comprising a signal separator that separates the modified input signal from the instruction signal and an instruction resolver that resolves the instruction signal to provide information to the reconstructor to facilitate reconstruction of the modified input signal to its original form prior to modification.

11. The communication device of claim 9, further comprising a signal corrector that corrects the modified input signal based on information associated with the instruction signal.

12. A communication device comprising:  
a signal splitter that decomposes an input signal into a plurality of replica signals, each of the plurality of replica signals having a maximum peak value below the maximum peak value of the input signal;

a signal combiner that sequential orders the plurality of replica signals for transmission; and

a power amplifier that amplifies the sequentially ordered plurality of replica signals to provide a transmission signal.

13. The transmitter of claim 12, the signal combiner combines an instruction signal with the plurality of replica signals, the instruction signal informs a receiver of at least one of the number of replica signals and scaling associated with the replica signals.

14. A communication system comprising:

means for modifying an input signal to provide a modified input signals having reduced peak signals;

means for generating an instruction signal associated with reconstructing the input signal to its original form prior to modification;

means for transmitting a transmission signal that includes the modified input signal and the instruction signal;

means for receiving the transmission signal; and

means for reconstructing the input to its original form prior to modification employing the instruction signal.

15. The system of claim 14, further comprising means for combining the modified input signal and the instruction signal into the transmission signal.

16. The system of claim 14, the means for modifying comprising means for decomposing the input signal into a plurality of replica signals, each having a maximum peak signal below the maximum peak signal of the input signal, and means for sequentially ordering the plurality of replica signals into a transmission signal.

17. A method of transmitting a signal in a communication system comprising:  
modifying an input signal to reduce peak signals associated with the input signal;

generating an instruction signal or code associated with information relating to the peak reduction of the input signal;

combining the modified input signal and the instruction signal or code into a transmission signal;

converting the transmission signal from the digital domain to the analog domain;

amplifying the transmission signal; and

transmitting the transmission signal.

18. The method of claim 17, the combining the modified input signal and the instruction signal or code into a transmission signal comprising one of combining the instruction signal or code with the transmission signal in one of a parallel and a sequential relationship.

19. The method of claim 17, further comprising separating the modified input signal from the instruction signal or code and reconstructing the modified input signal to its original form prior to peak reduction based on information associated with the instruction signal or code.

20. A method of transmitting a signal in a communication system comprising:  
modifying an input signal into a plurality of replica signals, each of the plurality of replica signal having a peak signal below the maximum peak signal of the input signal;  
sequentially ordering the plurality of replica signals into a transmission signal;  
converting the transmission signal from the digital domain to the analog domain;  
amplifying the transmission signal; and  
transmitting the transmission signal.

21. The method of claim 20, further comprising reconstructing the plurality of replica signals into its original form prior to modification.